06570. P039
SAP AG
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NOTICE OF ALLOWANCE AND FEE(S) DUE

8791 7590 01/03/2007

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER	
NAHAR, QAMRUN	
ART UNIT	PAPER NUMBER
2191	

DATE MAILED: 01/03/2007

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP
LOS ANGELES

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,396	12/30/2003	Nikolai G. Nikolov	6570P039	8969

TITLE OF INVENTION: CLASSFILE CONVERSION INTO AN ORGANIZATION OF OBJECTS, AND MODIFICATION THEREOF, TO EFFECT BYTECODE MODIFICATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1400	$0	$0	$1400	04/03/2007

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

Uploaded in FIP on: 1/8/07
By: Cal
BV - Office

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

1/8/07

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

8791 7590 01/03/2007

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission
I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,396	12/30/2003	Nikolai G. Nikolov	6570P039	8969

TITLE OF INVENTION: CLASSFILE CONVERSION INTO AN ORGANIZATION OF OBJECTS, AND MODIFICATION THEREOF, TO EFFECT BYTECODE MODIFICATION

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1400	$0	$0	$1400	04/03/2007

EXAMINER	ART UNIT	CLASS-SUBCLASS
NAHAR, QAMRUN	2191	717-151000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).
- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____ 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:
- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): **(Please first reapply any previously paid issue fee shown above)**
- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. **Change in Entity Status** (from status indicated above)
- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/750,396	12/30/2003	Nikolai G. Nikolov	6570P039	8969

8791 7590 01/03/2007

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
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SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER	
NAHAR, QAMRUN	
ART UNIT	PAPER NUMBER
2191	

DATE MAILED: 01/03/2007

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 554 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 554 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Date 2/3/2007 √ **Client:** SAP AG
Docket Initials _____ 6570.P039
Dock. Sup. Initials _____
Atty Initials _____ GDC ROR
Pat/Ser/Reg 750396
Description: 43r √

Reminder - Issue fee due: 4/3/2007

1/5/2007 Sandy Lingard 637511

Date 4/3/2007 √ **Client:** SAP AG
Docket Initials _____ 6570.P039
Dock. Sup. Initials _____
Atty Initials _____ GDC ROR
Pat/Ser/Reg 750396
Description: 43√ x

Issue fee due

1/5/2007 Sandy Lingard 637510

Entered in FIP on: 1-5-07
By: SL
Docketing Department

Notice of Allowability	Application No.	Applicant(s)	
	10/750,396	NIKOLOV, NIKOLAI G.	
	Examiner	Art Unit	
	Qamrun Nahar	2191	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *the amendment filed on 11/6/06*.

2. ☒ The allowed claim(s) is/are *1, 5-6, 8-20, 24-25, 27-39, 43-44 and 46-57, renumbered 1-45*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 11/6/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

TED VO
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100

DETAILED ACTION

1. This action is in response to the amendment filed on 11/6/06.

2. The objections to the drawings are withdrawn in view of applicant's submission of replacement sheet and remarks/arguments.

3. The objections to the specification are withdrawn in view of applicant's amendment and/or remarks/arguments and Examiner's Amendment (See below).

4. The objections to claims 2-19, 21-38 and 40-57 are withdrawn in view of applicant's amendment.

5. The rejection under 35 USC 112, second paragraph, to claims 1, 20 and 39 is withdrawn in view of applicant's amendment.

6. The rejection under 35 USC 101 to claims 1-57 is withdrawn in view of applicant's amendment and Examiner's Amendment (See below).

7. The rejection under 35 USC 102(b) as being anticipated by Cirne (U.S. 6,260,187) to claims 1-7, 20-26 and 39-45 is withdrawn in view of applicant's amendment and remarks/arguments.

8. The rejection under 35 USC 103(a) as being unpatentable over Cirne (U.S. 6,260,187) in view of Berry (U.S. 6,026,237) to claims 8-19, 27-38 and 46-57 is withdrawn in view of applicant's amendment and remarks/arguments.

9. Claims 1, 5-6, 8-20, 24-25, 27-39, 43-44, 46-48 and 50-57 have been amended.

10. Claims 2-4, 7, 21-23, 26, 40-42 and 45 have been canceled.

11. Claims 1, 5-6, 8-20, 24-25, 27-39, 43-44 and 46-57 are pending.

12. Claims 1, 5-6, 8-20, 24-25, 27-39, 43-44 and 46-57 are allowed, renumbered 1-45.

Drawings

13. The drawings were received on 11/06/2006. These drawings are acceptable.

EXAMINER'S AMENDMENT

14. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert O'Rourke (Reg. No. 46,972) on 12/20/06.

The application has been amended as follows:

In the Specification:

On pg. 50, par. 0127, at line 12, after "e.g.,", delete [http://] and insert the website located at

On pg. 50, par. 0127, at line 12, after "com" delete [/]

On pg. 66, par. 0160, at line 4, after "e.g.,", delete [http://] and insert the website located at

In the Claims:

Claim 5 (Currently Amended),

At line 1, after "claim" delete [4]

Claim 20 (Currently Amended),

At line 1, before "medium" insert storage

Claim 24 (Currently Amended),

At line 1, before "medium" insert storage

Claim 25 (Currently Amended),

At line 1, before "medium" insert storage

Claim 27 (Currently Amended),

At line 1, before "medium" insert storage

Claim 28 (Currently Amended),

At line 1, before "medium" insert storage

Claim 29 (Currently Amended),

At line 1, before "medium" insert storage

Claim 30 (Currently Amended),

At line 1, before "medium" insert storage

Claim 31 (Currently Amended),

At line 1, before "medium" insert storage

Claim 32 (Currently Amended),

At line 1, before "medium" insert storage

Claim 33 (Currently Amended),

At line 1, before "medium" insert storage

Claim 34 (Currently Amended),

At line 1, before "medium" insert storage

Claim 35 (Currently Amended),

At line 1, before "medium" insert storage

Claim 36 (Currently Amended),

At line 1, before "medium" insert storage

Claim 37 (Currently Amended),

At line 1, before "medium" insert storage

Claim 38 (Currently Amended),

At line 1, before "medium" insert storage

Claim 39 (Currently Amended),

At line 2, before "medium" insert storage

At line 2, after "medium" insert and/or memory

Claim 43 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

At line 1, after "claim", delete [42] and insert 39

Claim 44 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 46 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 47 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 48 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 49 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 50 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 51 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 52 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 53 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 54 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 55 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 56 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

Claim 57 (Currently Amended),

At line 1, before "of", delete [machine readable medium] and insert computing system

- END -

REASONS FOR ALLOWANCE

15. The following is an examiner's statement of reasons for allowance:

The cited prior art taken alone or in combination fail to teach, in combination with the other claimed limitations, when executed by said method, invokes a pre-existing dispatcher to identify a plug-in module for said method that said method invokes to report and/or record information about said method ... for a second method that registers, with said dispatcher upon loading of said classfile, an identity of said classfile's class and respective identities of methods of said classfile, said dispatcher and plug-in module being in existence prior to said loading of said classfile as recited in independent claims 1, 20 and 39.

The closest cited prior art, Avakian et al (US 2005/0039171) teaches a method of bytecode modification. However, Avakian et al (US 2005/0039171) fail to teach when executed by said method, invokes a pre-existing dispatcher to identify a plug-in module for said method

that said method invokes to report and/or record information about said method ... for a second method that registers, with said dispatcher upon loading of said classfile, an identity of said classfile's class and respective identities of methods of said classfile, said dispatcher and plug-in module being in existence prior to said loading of said classfile as recited in independent claims 1, 20 and 39; and as pointed out by the applicant's arguments on pg. 26, par. 3 to pg. 28, par. 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

16. Any inquiry concerning this communication from the examiner should be directed to Qamrun Nahar whose telephone number is (571) 272-3730. The examiner can normally be reached on Mondays through Fridays from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y Zhen, can be reached on (571) 272-3708. The fax phone number for the organization where this application or processing is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Qamrun Nahar
December 22, 2006

TED VO
PRIMARY EXAMINER
TECHNOLOGY CENTER 2100

Substitute for Form 1449/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Complete if Known	
Application Number	10/750,396
Filing Date	December 30, 2003
First Named Inventor:	Nikolai G. Nikolov
Art Unit	2194
Examiner Name	Kimball, Makayla T.
Attorney Docket Number	6570.P039

Sheet 1 of 3

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number Number-Kind Code[2] (if known)		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
QN		US-	7,093,234	08-15-2006	Hibbeler et al.	
QN		US-	2002/0170036	11-14-2002	Cobb et al.	
QN		US-	2005/0039171 A1	02-17-2005	Avakian et al.	
QN		US-	2005/0039187 A1	02-17-2005	Avakian et al.	
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document Country Code[3] Number[4] Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature		Date Considered	12/22/06

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. [1]Applicant's unique citation designation number (optional). [2]See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. [3]Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). [4]For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. [5]Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. [6]Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SENT FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for Form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT *(use as many sheets as necessary)*				Application Number	10/750,396
				Filing Date	December 30, 2003
				First Named Inventor:	Nikolai G. Nikolov
				Art Unit	2194
				Examiner Name	Kimball, Makayla T.
Sheet	2	of	3	Attorney Docket Number	6570.P039

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[2]
QN		GEOFF A. COHEN et al., **"Automatic Program Transformation with JOIE"**, Paper, Department of Computer Science, Duke University, 12 pages	
QN		ALAN SNYDER, **"The Essence of Objects: Concepts and Terms"**, IEEE Software, January 1993, pp. 31-42, Sunsoft, Mountain View	
QN		Duke University, **"The Java Object Instrumentation Environment"**, www.cs.duke.edu/ari/joie/, last updated May 2003, printed September 28, 2006, 2 pages.	
QN		RALPH KELLER et al., **"Supporting the Integration and Evolution of Components Through Binary Component Adaptation"**, www.cs.ucsb.edu/oocsb, September 9, 1997, Technical Report TRCS97-15, 12 pages	
QN		HAN BOK LEE, **"BIT: Bytecode Instrumenting Tool"** University of Colorado, Department of Computer Science 1997, 51 pages	
QN		MARKUS DAHM, **"Welcome to the Byte Code Engineering Library 4.4.1"**, http://bcel.sourceforge.net/main.html, last updated 4/12/2002, 2 pages, printed September 28, 2006	
QN		Alphaworks, **"Jikes Bytecode Toolkit: Overview"**, www.alphaworks.ibm.com/tech/jikesbt, posted March 31, 2000, 2 pages, printed September 28, 2006	

Examiner Signature		Date Considered	12/22/06

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Substitute for Form 1449/PTO				Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT *(use as many sheets as necessary)*				Application Number	10/750,396
				Filing Date	December 30, 2003
				First Named Inventor:	Nikolai G. Nikolov
				Art Unit	2194
				Examiner Name	Kimball, Makayla T.
Sheet	3	of	3	Attorney Docket Number	6570.P039

RELATED PATENT APPLICATION INFORMATION

Examiner Initials*	Cite No[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T[2]
QN		NIKOLAI NIKOLOV, "**Execution of Modified Byte Code for Debugging, Testing And/Or Monitoring of Object Oriented Software**", Serial number 10/749,617, filed on December 30, 2003, Office Action mailed August 23, 2006. Copy of the Office Action, claims as they stood in the application prior to the mailing of the Office Action and a copy of the claims as they were presented to the PTO in response to the Office Action.	

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In re Application of: Nikolai G. Nikolov

Application No.: 10/750,396

Filed: December 30, 2003

For: CLASSFILE CONVERSION INTO AN ORGANIZATION OF OBJECTS, AND MODIFICATION THEREOF, TO EFFECT BYTECODE MODIFICATION

CLAIMS AS ALLOWED- NOTICE OF ALLOWANCE

MAILED January 3, 2007

1. (Previously presented) A classfile modification method, comprising:

converting a classfile into a collection of objects, said collection of objects including a first object that represents a method information structure found in said classfile, said collection of objections including a second object that inherits a property that said first object has, said second object representing a bytecode instruction of a method;

adding a third object to said collection of objects, said third object inheriting the properties of said first object, said third object representing a bytecode instruction to be executed by said method that, when executed by said method, invokes a pre-existing dispatcher to identify a plug-in module for said method that said method invokes to report and/or record information about said method;

adding a fourth object to said collection of objects that represents a new method information structure for said classfile, said new method information structure containing byte code instructions for a second method that registers, with said dispatcher upon loading of said classfile, an identity of said classfile's class and

respective identities of methods of said classfile, said dispatcher and plug-in module being in existence prior to said loading of said classfile; and,

converting said collection of objects including said third object into a modified version of said classfile.

2-4. (Canceled).

5. (Previously presented) The classfile modification method of claim 1, further comprising adding a fifth object to said collection of objects that represents a new field information structure for said classfile.

6. (Previously presented) The classfile modification method of claim 5, wherein said field information structure is to store a numeric identification assigned to said class by said dispatcher.

7. (Canceled).

8. (Previously presented) The classfile modification method of claim 1, wherein said third object is added to said collection of objects in a position that corresponds to a region of said method's instructions that is executed just after said method's entry point is reached.

9. (Previously presented) The classfile modification method of claim 8, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokestatic instruction.

10. (Previously presented) The classfile modification method of claim 8, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokevirtual instruction.

11. (Previously presented) The classfile modification method of claim 1, wherein said third object is added to said collection of objects at a position that corresponds to a region of said method's instructions that is executed if an exit point of said method will inevitably be reached.

12. (Previously presented) The classfile modification method of claim 11, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokestatic instruction.

13. (Previously presented) The classfile modification method of claim 11, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokevirtual instruction.

14. (Previously presented) The classfile modification method of claim 1, wherein said third object is added to said collection of objects in a position that corresponds to a region of said method's instructions that will be executed if an error arises during execution of said method.

15. (Previously presented) The classfile modification method of claim 14, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokestatic instruction.

16. (Previously presented) The classfile modification method of claim 14, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokevirtual instruction.

17. (Previously presented) The classfile modification method of claim 1, further comprising:

adding said third object to said collection of objects at a position that corresponds to a region of said method's instructions that is executed just after said method's entry point is reached;

adding a fifth object to said collection of objects at a position that corresponds to a region of said method's instructions that is executed if an exit point of said method will inevitably be reached; and,

adding a sixth object to said collection of objects at a position that corresponds to a region of said method's instructions that will be executed if an error arises during execution of said method.

18. (Previously presented) The classfile modification method of claim 17, wherein said classfile is a Java compatible classfile and said third, fifth and sixth objects correspond to the addition of invokestatic instructions.

19. (Previously presented) The classfile modification method of claim 17, wherein said classfile is a Java compatible classfile and said third, fifth and sixth objects correspond to the addition of invokevirtual instructions.

20. (Previously presented) A machine readable medium containing instructions which when executed cause a classfile modification method to be performed, said classfile modification method comprising:

converting a classfile into a collection of objects, said collection of objects including a first object that represents a method information structure found in said classfile, said collection of objections including a second object that inherits a property that said first object has, said second object representing a bytecode instruction of a method;

adding a third object to said collection of objects, said third object inheriting the properties of said first object, said third object representing a bytecode instruction to be executed by said method that, when executed by said method, invokes a pre-existing dispatcher to identify a plug-in module for said method that said method invokes to report and/or record information about said method;

adding a fourth object to said collection of objects that represents a new method information structure for said classfile, said new method information structure containing byte code instructions for a second method that registers, with said dispatcher upon loading of said classfile, an identity of said classfile's class and respective identities of methods of said classfile, said dispatcher and plug-in module being in existence prior to said loading of said classfile; and,

converting said collection of objects including said third object into a modified version of said classfile.

21-23. (Canceled).

24. (Previously presented) The machine readable medium of claim 20, wherein said classfile modification method further comprises adding a fifth object to said

collection of objects that represents a new field information structure for said classfile.

25. (Previously presented) The machine readable medium of claim 24, wherein said field information structure is to store a numeric identification assigned to said class by said dispatcher.

26. (Canceled).

27. (Previously presented) The machine readable medium of claim 20, wherein said third object is added to said collection of objects in a position that corresponds to a region of said method's instructions that is executed just after said method's entry point is reached.

28. (Previously presented) The machine readable medium of claim 27, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokestatic instruction.

29. (Previously presented) The machine readable medium of claim 27, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokevirtual instruction.

30. (Previously presented) The machine readable medium of claim 20, wherein said third object is added to said collection of objects at a position that corresponds to a region of said method's instructions that is executed if an exit point of said method will inevitably be reached.

31. (Previously presented) The machine readable medium of claim 30, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokestatic instruction.

32. (Previously presented) The machine readable medium of claim 30, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokevirtual instruction.

33. (Previously presented) The machine readable medium of claim 20, wherein said third object is added to said collection of objects in a position that corresponds to a region of said method's instructions that will be executed if an error arises during execution of said method.

34. (Previously presented) The machine readable medium of claim 33, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokestatic instruction.

35. (Previously presented) The machine readable medium of claim 33, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokevirtual instruction.

36. (Previously presented) The machine readable medium of claim 20, wherein said classfile modification method further comprises:

adding said third object to said collection of objects at a position that corresponds to a region of said method's instructions that is executed just after said method's entry point is reached;

adding a fifth object to said collection of objects at a position that corresponds to a region of said method's instructions that is executed if an exit point of said method will inevitably be reached; and,

adding a sixth object to said collection of objects at a position that corresponds to a region of said method's instructions that will be executed if an error arises during execution of said method.

37. (Previously presented) The machine readable medium of claim 36, wherein said classfile is a Java compatible classfile and said third, fifth and sixth objects correspond to the addition of invokestatic instructions.

38. (Previously presented) The machine readable medium of claim 36, wherein said classfile is a Java compatible classfile and said third, fifth and sixth objects correspond to the addition of invokevirtual instructions.

39. (Previously presented) A computing system implemented with a machine readable medium containing instructions which when executed cause a classfile modification method to be performed, said classfile modification method comprising:

converting a classfile into a collection of objects, said collection of objects including a first object that represents a method information structure found in said classfile, said collection of objections including a second object that inherits a property that said first object has, said second object representing a bytecode instruction of a method;

adding a third object to said collection of objects, said third object inheriting the properties of said first object, said third object representing a bytecode instruction to be executed by said method that, when executed by said method, invokes a pre-existing dispatcher to identify a plug-in module for said method that said method invokes to report and/or record information about said method;

adding a fourth object to said collection of objects that represents a new method information structure for said classfile, said new method information structure containing byte code instructions for a second method that registers, with said dispatcher upon loading of said classfile, an identity of said classfile's class and respective identities of methods of said classfile, said dispatcher and plug-in module being in existence prior to said loading of said classfile; and,

converting said collection of objects including said third object into a modified version of said classfile.

40-42. (Canceled).

43. (Previously presented) The machine readable medium of claim 42, wherein said classfile modification method further comprises adding a fifth object to said collection of objects that represents a new field information structure for said classfile.

44. (Previously presented) The machine readable medium of claim 43, wherein said field information structure is to store a numeric identification assigned to said class by said dispatcher.

45. (Canceled).

46. (Previously presented) The machine readable medium of claim 39, wherein said third object is added to said collection of objects in a position that corresponds to a region of said method's instructions that is executed just after said method's entry point is reached.

47. (Previously presented) The machine readable medium of claim 46, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokestatic instruction.

48. (Previously presented) The machine readable medium of claim 46, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokevirtual instruction.

49. (Original) The machine readable medium of claim 39 wherein said adding at least one additional other object further comprises adding an additional other object at a position that corresponds to a region of said unique method's instructions that is executed if an exit point of said unique method will inevitably be reached.

50. (Previously presented) The machine readable medium of claim 49, wherein said third object is added to said collection of objects at a position that corresponds to a region of said method's instructions that is executed if an exit point of said method will inevitably be reached.

51. (Previously presented) The machine readable medium of claim 49, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokestatic instruction.

52. (Previously presented) The machine readable medium of claim 39, wherein said third object is added to said collection of objects in a position that corresponds to a region of said method's instructions that will be executed if an error arises during execution of said method.

53. (Previously presented) The machine readable medium of claim 52, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokestatic instruction.

54. (Previously presented) The machine readable medium of claim 52, wherein said classfile is a Java compatible classfile and said adding of said third object corresponds to the addition of an invokevirtual instruction.

55. (Previously presented) The machine readable medium of claim 39, wherein said classfile modification method further comprises:

adding said third object to said collection of objects at a position that corresponds to a region of said method's instructions that is executed just after said method's entry point is reached;

adding a fifth object to said collection of objects at a position that corresponds to a region of said method's instructions that is executed if an exit point of said method will inevitably be reached; and,

adding a sixth object to said collection of objects at a position that corresponds to a region of said method's instructions that will be executed if an error arises during execution of said method.

56. (Previously presented) The machine readable medium of claim 55, wherein said classfile is a Java compatible classfile and said third, fifth and sixth objects correspond to the addition of invokestatic instructions.

57. (Previously presented) The machine readable medium of claim 55, wherein said classfile is a Java compatible classfile and said third, fifth and sixth objects correspond to the addition of invokevirtual instructions.